WE CLAIM:

1. A printhead chassis assembly for a chip based printhead, comprising:

a chassis which supports two spaced apart bearing moldings between which extend a feed roller and an exit roller;

the chassis supporting a duct cover in which is formed a number of inlet ports which are adapted to receive liquid ink;

the duct cover sealing against a distribution molding, the distribution molding having a longitudinal axis and a number of elongated ducts running in parallel along the axis, each duct being associated with a port;

all of the ducts are sealed against and in fluid communication with an upper layer of a laminated ink distribution structure;

the laminated ink distribution structure having a first layer in which is formed a number of first holes, each first hole being in registry with a lower duct portion;

the laminated ink distribution structure having a number of subsequent layers, each subsequent layer having vertical passages and transverse channels for bringing a fluid from a duct, via the first layer, to one of a number of printhead chips located as an array in a chip restraining layer;

the chips arranged to print onto a sheet of media carried by the feed roller and the exit roller.

2. The assembly of claim 1, wherein:

a subsequent layer in the laminated ink distribution structure comprising, in part, an electrically conductive film having one end which is electrically connected to the chips;

the film extending out of the laminated ink distribution structure to make electrical contact with a printhead controlling printed circuit board which is carried by the chassis.

3. The assembly of claim 1, wherein:

the laminated ink distribution structure further comprises a laminated manifold for distributing liquids and air to a number of delivery locations associated with each of the printhead chips.

4. The assembly of claim 3, wherein:

the first layer and subsequent layers further comprise air distribution passages which carry compressed air to a location near a nozzle array formed in each of the printhead chips.

5. The assembly of claim 2, wherein:

a subsequent layer comprises a final layer in which is formed an array of chip slots for receiving the printhead chips;

the conductive film being retained between the final layer and an adjacent layer.

6. The assembly of claim 4, wherein:

each chip is associated with a nozzle guard assembly in which is formed an array of microapertures that are aligned with nozzles carried by the chips, so that the ink drops ejected at high speed from the nozzle array passes through the microapertures.

7. The assembly of claim 6, wherein:

the first layer and subsequent layers further comprise air distribution passages which carry compressed air for discharge at locations between each of the printhead chips and the nozzle guards.

8. The assembly of claim 1, wherein:

the laminated ink distribution structure further comprises layers of a micro-molded acetal plastic forming a distribution stack in which transverse channels in one or more layers lead to and from through holes which carry ink or air between layers.

9. The assembly of claim 1, wherein:

the printhead has a longitudinal axis and the individual printhead chips and the slots in the final layer are arranged at an angle to the longitudinal axis of the printhead, with a slight overlap between each print chip which enables continuous transmission of ink over the entire length of the array.

10. The assembly of claim 1, wherein:

the distribution molding is located between the duct cover and the laminated ink distribution structure within a chassis; and

subsequent layers in the laminated ink distribution structure having between them an electrically conductive film having one end which is electrically connected to the chips;

the film extending out of the laminated ink distribution structure to make electrical contact with a printhead controlling printed circuit board which is carried by the chassis.

11. The assembly of claim 10, further comprising:

a film backing pad which maintains the film in electrical contact with an undersurface of the printed circuit board.

12. The assembly of claim 1, further comprising:

a longitudinal air duct within which is located an air valve molding formed as a channel with a series of apertures in its base; and

the apertures corresponding to air passages formed in the air duct so that the apertures can be brought into and out of alignment with the passages to selectively allow pressurized air through;

the air valve molding reciprocating within the air duct;

a spring maintaining a sealing inter-engagement of a bottom of the air valve molding with the base of the air duct to prevent leakage.

13. The assembly of claim 12, wherein:

the air valve molding has a cam follower extending from one end, which engages an air valve cam surface on an end cap of a multi-purpose platen so as to selectively move the air valve molding longitudinally within the air duct according to a rotational positional of the platen.

14. The assembly of claim 13, wherein:

the platen may be rotated between printing, capping or blotting positions.

15. The assembly of claim 14, wherein:

the platen has a position for printing in which the cam holds the air valve in an open position to supply air to the print chip; and

when the platen is rotated to a non-printing position, it seals off a plurality of micro-apertures in the nozzle guard.

16. The assembly of claim 13, wherein:

the platen member has an exposed blotting portion, the portion being an exposed part of a body of blotting material located inside the platen.

17. The assembly of claim 13, wherein:

the platen member has a platen surface and a capping portion and an exposed blotting portion which are separated from one another by about 120 degrees of rotation.

18. The assembly of claim 14, further comprising:

a capping assembly which is supported at each end by a bearing molding; each bearing molding having a pair of vertical rails;

the four vertical rails enabling the capping assembly to move vertically.

19. The assembly of claim 18, wherein:

a spring under either end of the capping assembly biases the assembly into a raised position, maintaining a cam in contact with a spacer projection;

the printhead chips being capped when not is use by a full-width capping member using an elastomeric seal 86.

20. The assembly of claim 9, wherein:

recesses for accommodating a conductive film are formed into the final layer and lead to each of the slots.